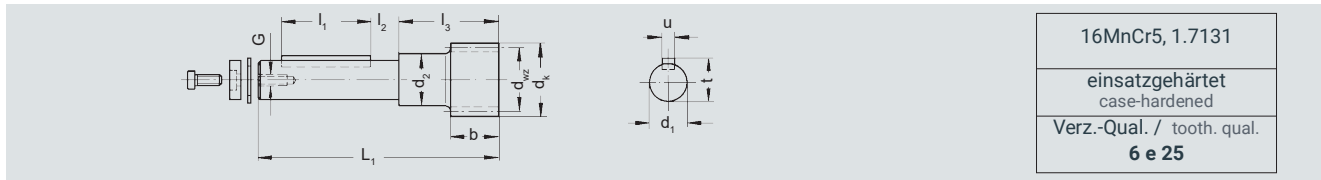


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Ritzelwellen für Passfeder-Verbindung	Pinion for key connection	B-58
Ritzelwellen für Schrumpfscheiben-Verbindung	Pinion for shrink-disc connection	B-59
Verspannungs-Ritzelwellen	Pre-load pinion shafts	B-61 – B-63



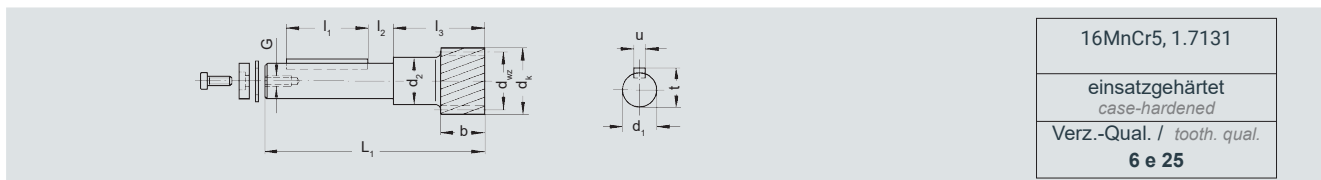
gerade verzahnt, 20° EW, Verzahnung längsballig geschliffen, Toleranzen nach DIN 3962/63/67
straight tooth system, 20° pressure angle, teeth are ground and crowned, tolerances acc. to DIN 3962/63/67



16MnCr5, 1.7131
 einsatzgehärtet
 case-hardened
 Verz.-Qual. / tooth. qual.
6 e 25

Bestell-Nr. Order code	Getriebe ao Gearbox ao HP/E	Modul module	Zähnez. no. of teeth	x	d ¹⁾	d _{wz} ²⁾	d _k	b	d _{1h6}	d ₂	L ₁	l ₁	l ₂	l ₃	u	t	G	a	kg
20 28 115	32	2	15	0,375	30,00	31,50	35,5	25	20	24	105	28	13,5	50,0	6	22,5	M 5	37,75	0,50
20 28 021	50	2	21	-	42,00	42,00	46,0	25	25	35	141	63	13,0	53,0	8	28,0	M 8	43,00	1,21
20 28 332	50	2	32	-	64,00	64,00	68,0	25	25	38	141	63	13,0	53,0	8	28,0	M 8	54,00	1,25
20 28 321	50	3	21	-	63,00	63,00	69,0	30	25	38	143	63	13,0	55,0	8	28,0	M 8	57,50	1,33
20 28 432	63	2	32	-	64,00	64,00	68,0	25	28	42	166	80	14,5	57,5	8	31,0	M 8	54,00	1,50
20 28 421	63	3	21	-	63,00	63,00	69,0	30	28	42	168	80	14,5	60,0	8	31,0	M 8	57,50	1,60
20 28 417	63	4	17	-	68,00	68,00	76,0	40	28	42	173	80	14,5	65,0	8	31,0	M 8	69,00	2,00
20 28 532	80	2	32	-	64,00	64,00	68,0	25	36	48	181	100	12,5	57,0	10	39,0	M 12	54,00	2,35
20 28 521	80	3	21	-	63,00	63,00	69,0	30	36	48	186	100	12,5	62,0	10	39,0	M 12	57,50	2,50
20 28 517	80	4	17	-	68,00	68,00	76,0	40	36	48	191	100	12,5	67,0	10	39,0	M 12	69,00	2,65
20 28 621	100	3	21	-	63,00	63,00	69,0	30	48	57	206	125	9,0	62,0	14	51,5	M 12	57,50	3,50
20 28 617	100	4	17	-	68,00	68,00	76,0	40	48	57	216	125	9,0	72,0	14	51,5	M 12	69,00	4,05
20 28 630	100	4	30	-	120,00	120,00	128,0	40	48	57	216	125	9,0	72,0	14	51,5	M 12	95,00	6,40
20 28 613	100	5	13	0,500	65,00	70,00	80,0	50	48	57	226	125	9,0	82,0	14	51,5	M 12	69,00	4,20
20 28 730	125	4	30	-	120,00	120,00	128,0	40	60	70	262	150	10,0	80,0	18	64,0	M 16	95,00	8,80
20 28 715	125	5	15	0,500	75,00	80,00	90,0	50	60	68	272	150	10,0	90,0	18	64,0	M 16	74,00	6,94
20 28 713	125	6	13	0,500	78,00	84,00	96,0	60	60	68	282	150	10,0	100,0	18	64,0	M 16	85,00	7,45

schräg verzahnt, 19° 31' 42" links, 20° EW, Verzahnung längsballig geschliffen, Toleranz nach DIN 3962/63/67
helical tooth system, 19°31'42" left, 20° pressure angle, teeth are ground and crowned, tolerances acc. to DIN 3962/63/67



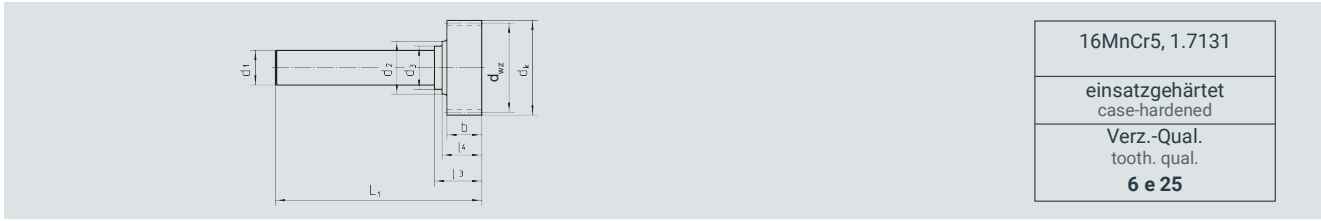
16MnCr5, 1.7131
 einsatzgehärtet
 case-hardened
 Verz.-Qual. / tooth. qual.
6 e 25

Bestell-Nr. Order code	Getriebe ao Gearbox ao HP/E	Modul module	Zähnez. no. of teeth	x	d ¹⁾	d _{wz} ²⁾	d _k	b	d _{1h6}	d ₂	L ₁	l ₁	l ₂	l ₃	u	t	G	a	kg
20 29 120	32	1,5	20	-	31,83	31,83	34,83	20	20	26	100	40	7,5	45,0	6	22,5	M 5	33,42	0,60
20 29 115	32	2	15	0,4172	31,83	33,50	37,50	25	20	24	105	28	13,5	50,0	6	22,5	M 5	39,75	0,50
20 29 020	50	2	20	-	42,44	42,44	46,44	25	25	35	141	63	13,0	53,0	8	28,0	M 8	43,22	1,21
20 29 330	50	2	30	-	63,66	63,66	67,70	25	25	38	141	63	13,0	53,0	8	28,0	M 8	53,83	1,25
20 29 320	50	3	20	-	63,66	63,66	69,70	30	25	38	143	63	13,0	55,0	8	28,0	M 8	57,83	1,33
20 29 430	63	2	30	-	63,66	63,66	67,70	25	28	42	166	80	14,5	57,5	8	31,0	M 8	53,83	1,50
20 29 420	63	3	20	-	63,66	63,66	69,70	30	28	42	168	80	14,5	60,0	8	31,0	M 8	57,83	1,60
20 29 415	63	4	15	-	63,66	63,66	71,70	40	28	42	173	80	14,5	65,0	8	31,0	M 8	66,83	1,85
20 29 530	80	2	30	-	63,66	63,66	69,70	25	36	48	181	100	12,5	57,0	10	39,0	M 12	53,83	2,40
20 29 520	80	3	20	-	63,66	63,66	69,70	30	36	48	186	100	12,5	62,0	10	39,0	M 12	57,83	2,40
20 29 515	80	4	15	-	63,66	63,66	71,70	40	36	48	191	100	12,5	67,0	10	39,0	M 12	66,83	2,50
20 29 620	100	3	20	-	63,66	63,66	69,70	30	48	57	206	125	9,0	62,0	14	51,5	M 12	57,83	3,50
20 29 615	100	4	15	-	63,66	63,66	71,70	40	48	57	216	125	9,0	72,0	14	51,5	M 12	66,83	3,90
20 29 630	100	4	30	-	127,32	127,32	135,30	40	48	57	216	125	9,0	72,0	14	51,5	M 12	98,66	6,90
20 29 612	100	5	12	0,434	63,66	68,00	78,00	50	48	57	226	125	9,0	82,0	14	51,5	M 12	68,00	4,20
20 29 730	125	4	30	-	127,32	127,32	135,30	40	60	70	262	150	12,5	80,0	18	64,0	M 16	98,66	9,00
20 29 715	125	5	15	0,500	79,58	84,58	94,50	50	60	68	272	150	10,0	90,0	18	64,0	M 16	76,29	7,24
20 29 713	125	6	13	0,500	82,76	88,76	100,70	60	60	70	282	150	10,0	100,0	18	64,0	M 16	87,38	7,89

¹⁾ d = Teilkreis / reference circle
²⁾ d_{wz} = Wälzkreis / pitch circle

Berechnung des Achsabstandes a zwischen Ritzel und Zahnstange, siehe Seite B-62
 Calculation of centre distance a between pinion and rack, see page B-62

gerade verzahnt, 20° EW, Verzahnung längsbollig geschliffen, Toleranzen nach DIN 3962/63/67
straight tooth system, 20° pressure angle, teeth are ground and crowned, tolerances acc. to DIN 3962/63/67



16MnCr5, 1.7131
einsatzgehärtet case-hardened
Verz.-Qual. tooth. qual. 6 e 25

Bestell-Nr. Order code	Getriebegröße Gearbox size HT	Modul module	Zähnez. no. of teeth	x	d ¹⁾	d _{wz} ²⁾	d _k	b	d _{1h6}	d ₂	d ₃	L ₁	l ₃	l ₄	a	kg	
20 88 115	x	32	2	15	0,375	30,00	31,50	35,5	25	20	24	-	105	31,0	-	37,75	0,50
20 88 021	x	50	2	21	-	42,00	42,00	46,0	25	25	35	31	148	34,0	28,5	43,00	1,21
20 88 332	x	50	2	32	-	64,00	64,00	68,0	25	25	38	31	148	34,0	28,5	54,00	1,25
20 88 321	x	50	3	21	-	63,00	63,00	69,0	30	25	31	-	150	36,5	-	57,50	1,33
20 88 432	50	63	2	32	-	64,00	64,00	68,0	25	28	42	36	180	38,5	33,0	54,00	1,50
20 88 421	50	63	3	21	-	63,00	63,00	69,0	30	28	42	36	183	41,0	35,5	57,50	1,60
20 88 417	50	63	4	17	-	68,00	68,00	76,0	40	28	36	-	188	46,0	-	69,00	2,00
20 88 532	63	80	2	32	-	64,00	64,00	68,0	25	36	48	-	203	32,5	-	54,00	2,35
20 88 521	63	80	3	21	-	63,00	63,00	69,0	30	36	48	-	208	37,5	-	57,50	2,50
20 88 517	63	80	4	17	-	68,00	68,00	76,0	40	36	48	-	213	42,5	-	69,00	2,65
20 88 621	80	100	3	21	-	63,00	63,00	69,0	30	48	57	-	230	33,5	-	57,50	3,65
20 88 617	80	100	4	17	-	68,00	68,00	76,0	40	48	57	-	240	43,5	-	69,00	4,05
20 88 630	80	100	4	30	-	120,00	120,00	128,0	40	48	57	-	240	43,5	-	95,00	6,40
20 88 613	80	100	5	13	0,500	65,00	70,00	80,0	50	48	57	-	250	53,5	-	69,00	4,10
20 88 730	100	125	4	30	-	120,00	120,00	128,0	40	60	68	-	265	45,0	-	95,00	8,70
20 88 715	100	125	5	15	0,500	75,00	80,00	90,0	50	60	68	-	275	55,0	-	74,00	6,30
20 88 713	100	125	6	13	0,500	78,00	84,00	96,0	60	60	68	-	285	65,0	-	85,00	6,84

schräg verzahnt, 19° 31' 42" links, 20° EW, Verzahnung längsbollig geschliffen, Toleranz nach DIN 3962/63/67
helical tooth system, 19°31'42" left, 20° pressure angle, teeth are ground and crowned, tolerances acc. to DIN 3962/63/67

